

**FILL HEIGHT TABLE 1**  
**Corrugated Steel, Aluminum, Polyethylene and Reinforced Concrete Pipe**  
**HS20 Loading 2<sup>1/2</sup>" x 1<sup>1/2</sup>" Corrugations - Standard Specification Bedding Unless Otherwise Noted**

		Height of Cover Over Top Pipe in Feet - "H"																	
		Min. to 15' (2)		16' to 20'		21' to 25'		26' to 30'		31' to 35'		36' to 40'							
Dia. In. (5)	Area S.F.	Thickness		RCCP Class Pipe	Thickness		RCCP Class Pipe	Thickness		RCCP Class Pipe	Thickness		RCCP Class Pipe	Thickness		RCCP Class Pipe	Thickness		
		Steel	Alum		Steel	Alum		Steel	Alum		Steel	Alum		Steel	Alum		Steel	Alum	
* 12	0.8	0.064	0.060	III	0.064	0.060	IV	0.064	0.060	IV	0.064	0.060	V	0.064	0.060	V	0.064	0.075	V (4)
* 15	1.2	0.064	0.060	III	0.064	0.060	IV	0.064	0.060	IV	0.064	0.060	V	0.064	0.075	V	0.064	0.105	V (4)
* 18	1.8	0.064	0.060	III	0.064	0.060	IV	0.064	0.060	IV	0.064	0.075	V	0.064	0.105	V	0.064	0.135	V (4)
21	2.4	0.064	0.060	III	0.064	0.060	IV	0.064	0.075	IV	0.064	0.105	V	0.064	0.135	V	0.079	X	V (4)
* 24	3.1	0.064	0.075	III	0.064	0.075	IV	0.079	0.075	IV	0.079	0.105	V	0.079	0.164	V	0.079	X	V (4)
* 30	4.9	0.079	0.075	III	0.079	0.075	IV	0.079	0.105	IV	0.079	0.135	V	0.109	X	V	0.109	X	V (4)
* 36	7.1	0.079	0.105	III	0.079	0.105	IV	0.109	0.135	IV	0.109	0.164	V	0.138	X	V	0.138	X	V (4)
42	9.6	0.109	0.105	III	0.109	0.135	IV	0.109	0.164	IV	0.138	0.164	V	0.138	X	V	0.168	X	V (4)
48	12.6	0.109	0.105	III	0.109	0.135	IV	0.138	0.164	IV	0.168	X	V	0.168	X	V	0.138 E	X	V (4)
54	15.9	0.109	0.105	III	0.138	0.135	IV	0.168	0.164	IV	0.168	X	V	0.109 E	X	V	0.138 E	X	V (4)
60	19.6	0.138	0.164	III	0.138	X	IV	0.168	X	IV	0.138 E	X	V	0.138 E	X	V	0.168 E	X	V (4)
66	23.8	0.138	0.164	III	0.168	X	IV	0.168	X	IV	0.138 E	X	V	0.138 E	X	V	0.168 E	X	V (4)
72	28.3	0.138(3)	0.164	III	0.168	X	IV	0.168	X	IV	0.138 E	X	V	(1)					
78	33.2	0.168	X	III	0.168	X	IV	0.168 E	X	IV									

E = Elongated, Vertical Axis 5% greater than Horizontal

(1) Any pipe under the heavy line will require a special design.

(2) 12" minimum cover, top of pipe to top of subgrade.

(3) A thickness of 0.138" may be used for fill heights of min. to 10 Ft. a thickness of 0.168" may be used for fill heights of greater than 10 Ft. but less than 26 feet.

(4) Class "B" Bedding required.

**NOTE:** For steel and aluminum pipe in the shaded portion of the table, a corrugation size of 3" by 1" is generally more economical than 2 2/3 by 1/2 See table 2 and 7.

X = Do not use

(5) For corrugated steel pipe in a 6", 8" or 10" diameter, the minimum thickness is 0.052" and 0.064" respectively.

For corrugated aluminum pipe in 6", 8" or 10" diameter, the minimum thickness is 0.048", 0.048" and 0.06" respectively.

\* Corrugated polyethylene culvert pipe in these diameters are available for use as specified in procedure 13-1-15. Minimum fill height shall be 12 inches and maximum fill height shall be 15 feet. It is not necessary to specify thickness.